EA Form R 1/2007

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. *Applicant/Contact name and address:* Tobacco Bay Estates Homeowners Association
PO Box 948
Eureka, MT 59917

2. *Type of action:* Permit to Appropriate Water 76D-30042454

3. *Water source name:* Groundwater Well

4. *Location affected by project:* $NW^1/_4$ $SE^1/_4$ $SW^1/_4$, Section 7, Township 36N, Range 27W, Lincoln County

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

This application is to obtain a water use permit for two public water supply wells for servicing the proposed Tobacco Bay Estates Subdivision located approximately four miles northwest of Eureka. Water from these wells will be used to provide domestic and lawn/garden irrigation water for the proposed 21-lot subdivision covering approximately 54.3 acres. The period of diversion for the domestic use is from January 1 to December 31, and April 1 to October 31 for the lawn and garden use, inclusive of each year. The applicant proposes to divert water at a rate of 80 gpm up to 26.75 Ac-Ft per year, and this amount of diversion will be completed in 15 years.

6. *Agencies consulted during preparation of the Environmental Assessment: (include agencies with overlapping jurisdiction)*

Montana Historical Society ..... Cultural Resource File Search
Montana Natural Resource Program ..... Species of Concern
James Heffner ..... DNRC Hydrogeologist

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: N/A.

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: N/A.

Groundwater *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

The two public water supply wells will derive groundwater from the aquifer at a rate not to exceed 80 gpm. The wells were drilled into a confined fractured rock aquifer 500 feet below ground surface and have a static water level of 232 and 236 for wells one and two respectively. The applicant determined a zone of influence of approximately 7,267 ft. from the point of diversion by modeling a pumping flow rate of 16.6 gpm for the full period of appropriation. The annual volume of water passing through the potential zone of influence was calculated as 13,462 ac-ft. The proposed diverted amount of 26.75 ac.ft combined with existing appropriations totals 391.62 ac.ft. per year, representing 3% of annual available volume.

Pump tests of these wells and prior public water supply systems in the vicinity indicate this is confined aquifer, with its upper surface at approximately 200 feet below ground surface. The properties of a confined aquifer limit groundwater's interaction with surface water, and as a result should not impact surface water flows.

Determination: No impact

DIVERSION WORKS *- Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The groundwater well was completed on 6/26/2007 by Keith Davis (License #WWC-426), Eureka, MT. Two 5 hp. submersible pumps will be used to deliver water to a 0.09 ac-ft above ground storage tank, and then to a mainline distribution system. The project will be utilizing groundwater, therefore, there are no known significant impacts to channels, barriers, dams, riparian areas or modifications in flow.

Determination: No impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

The Montana Natural Heritage Program website was referenced to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern" in vicinity of Township 36N and Range 27W, that could be impacted by the proposed project. The US Fish and Wildlife Service identified the endangered Gray Wolf (*Canis lupus*) and the following threatened species: Canada Lynx (*Lynx canadensis*); Bull Trout (*Salvelinus confluentus*); and the plant Spalding's Campion (S*ilene spaldingii*). In addition the State of Montana, US Forest Service, and Bureau of Land Management identified the following species of special concern: Wolverine (*Gulo gulo*); Fisher (*Martes pennanti*); Common Loon (*Gavia immer*); Bald Eagle (*Haliaeetus leucocephalus*); Sharp-tailed Grouse (*Tympanuchus phasianellus columbianus*); Westslope Cutthroat Trout (*Onchorhynchus clarkia lewisi*); and the vascular plants Moonworts (*Botrychium sp.*) and Water Bulrush (*Scripus spaldingii*).

Determination: Due to the limited/no connection to surface water of this confined aquifer it is not expected that this proposed project will adversely impact any of these species.

Wetlands *- Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: There are no wetlands in the area of this proposed project.

Ponds *- For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: Not applicable, the project does not involve a pond.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE *- Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

The location of the proposed Tobacco Bay Estates subdivision encompasses two types of soils: Typic Xerochrepts, lacustrine terraces; and Typic Eutrochrepts, moraines. Soil erodibility of Typic Xerochrepts is moderate, however, due to the slope associated with Typic Eutrochrepts, its errodibility can be severe. The wells for this project are located on Typic Eutrochrepts soils and therefore have a potential for erosion during site disturbance.

Determination: Slight impact possible around location of wells; proper erosion and sedimentation control measures should be in place while disturbing soils on steep slopes.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

The development of Tobacco Bay Estates will occur in a primarily evergreen forest area, and as a result land use will change from forest to low density residential. There will be little likelihood for spread or establishment of noxious weeds as a result of this proposed project.

Determination: No significant impact.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: No impact.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

According to the records of The State Historic Preservation Office (SHPO) there have been a few previously recorded cultural resource sites within the designated search locale, which includes a lithic scatter and the Middle Kootenai River Archeological District. SHPO feels this project has the potential to impact cultural properties, and therefore, recommend the conductance of a cultural resource inventory.

Determination: Has the potential to impact cultural properties.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: None

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: The project is consistent with planned land use.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: There should be no significant impacts on recreational or wilderness activities from this proposed use.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: No impact.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**__ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: No impact.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* No

(b) *Local and state tax base and tax revenues?* No

(c) *Existing land uses?* No

(d) *Quantity and distribution of employment?* No

(e) *Distribution and density of population and housing?* Yes – 21 households will be built

(f) *Demands for government services?* Potential infrastructure services (e.g. road maintainance)

(g) *Industrial and commercial activity?* No

(h) *Utilities?* No

(i) *Transportation?* No

(j) *Safety?* No

(k) *Other appropriate social and economic circumstances?* No

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: None

Cumulative Impacts: None

3. *Describe any mitigation/stipulation measures:* None

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

The "no action" alternative to establishing a public water supply system for Tobacco Bay Estates may result in the subdivision not getting developed, or in establishing individual wells for each of the parcels.

PART III. Conclusion

1. ***Preferred Alternative***: As proposed

2 ***Comments and Responses:*** None

3. ***Finding:***
*Yes___ No **X** Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action: No significant impacts have been identified; therefore, no EIS is necessary.

Name of person(s) responsible for preparation of EA:

Name: Tim Eichner
Title: Water Resources Specialist
Date: November 3, 2008